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To: Commissioner for Patents:  Please record the attached original Commissioner of Copy thereof.	Date: July 19, 2005 Attorney Docket No. 5649-1699
Name of conveying party(ies):  [1.] Hyun-Jin Kim  Additional name(s) of conveying party(ies) attached?Yes _XNo	2. Name and address of receiving party(ies):  Samsung Electronics Co., Ltd. 416 Maetan-dong, Yeongtong-gu Suwon-si, Gyeonggi-do Republic of Korea
3. Nature of conveyance: X Assignment Merger Security Agreement Change of Name Other Execution Date: [1.] July 19, 2005	
4. Application Serial No.  If this document is being filed together with a new application is: [1.] July 19, 2005  Additional numbers attached?Yes _X_ No	
<ul> <li>5. Name and address of party to whom correspondence concerning document should be mailed:</li> <li>D. Randal Ayers</li> <li>Myers Bigel Sibley &amp; Sajovec</li> <li>P. O. Box 37428</li> <li>Raleigh NC 27627</li> </ul>	6. Total number of applications and patents involved: 1  7. Total fee (37 CFR 3.41) \$40.00  x Enclosed Authorized to be charged to deposit account  8. Deposit account number: 50-0220
DO NOT USE THIS SPACE	
9. Statement and signature  To the best of my knowledge and belief, the foregoing information of the original document.  D. Randal Ayers #40,493  Name of Person Signing  Total number of pages including cover sheet, attachments and documents.	July 19, 2005 Date

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## ASSIGNMENT

THIS ASSIGNMENT, made by me, **Hyun-Jin Kim**, citizen of the Republic of Korea, residing at 201, Yeongtong-dong, 1401-1, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea;

WITNESSETH: That.

WHEREAS, I am the sole inventor of certain new and useful improvements in METHODS OF GENERATING INTERNAL CLOCK SIGNALS FROM EXTERNAL CLOCK SIGNALS AND OF-MEASURING THE FREQUENCY OF-EXTERNAL CLOCK SIGNALS AND RELATED FREQUENCY MEASURING CIRCUITS AND SEMICONDUCTOR MEMORY DEVICES for which an application has been filed, or is being concurrently filed, in the United States Patent and Trademark Office. I hereby authorize and request Myers Bigel Sibley & Sajovec, P.A., to insert here in parentheses (Application No.\_\_\_\_\_\_\_, filed\_\_\_\_\_\_\_) the filing date and application number of said application when known or to file this Assignment concurrently with the application; and

WHEREAS, Samsung Electronics Co., Ltd., a Korean corporation having a principal place of business at 416 Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I have sold and by these presents do hereby sell, assign, transfer and convey unto the said assignee, its successors and assigns, the entire right, title and interest in and to the said invention and application, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as

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## **ASSIGNMENT - CONTINUED**

fully and entirely as the same would have been held and enjoyed by me if this assignment and sale had not been made.

I hereby request that said Letters Patent be issued in accordance with this assignment. I further covenant and agree that, at the time of the execution and delivery of these presents, I possess full title to the invention and application above-mentioned, and that I have the unencumbered right and authority to make this assignment.

I further covenant and agree to bind my heirs, legal representatives and assigns, promptly to communicate to said assignee or its representatives any facts known to me relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns and other legal representatives.

	IN WITNESS WHEREOF, I have hereunto set n	ny hand and seal on this 19th
of_	July , 2005.	
	Hyun-Jin Kim	(SEAL)
	Hyun-Jin Kim	(obnu)

**RECORDED: 07/19/2005** 

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